BHL
Preservation and Archive System architecture
Integration with Fedora and DuraCloud

co-funded by the Community programme eContentplus

Biodiversity Heritage Library
EUROPE
Agenda

• Introduction to BHL
• Criteria to Build a sustainable Preservation and Archive System
• BHL functional architecture overview
• Sustainability
• Lessons learned and Feedback
• Questions
Introduction to BHL

• Biodiversity Heritage Library
  – Since 1\textsuperscript{st} May 2009 (EU Funding) BHL has become BHL-Europe and BHL-America with others to come!

• Why?
  – Scientists and Taxonomists need information...
  – Access to geographically dispersed, specialist libraries is very difficult!
  – Access, Preservation and Sustainability are key goals for BHL.
# Build a sustainable PAS*

<table>
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<th>Modular architecture</th>
<th>OSGi approach</th>
<th>Interface abstraction</th>
<th>Standards based protocols</th>
<th>Loosely coupled Tightly integrated</th>
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*Biodiversity Heritage Library Europe*

www.bhl-europe.eu

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Fedora and DuraCloud Overview

FEDORA

OSGi compliant

DuraCloud

RESOURCES MANAGEMENT
- Workflow / Orchestration
- Pre-Ingest
- SIP
- INGEST
- BDS

SECURITY MANAGEMENT
- SECURITY
  - [Authentication/Authorization/Rights]

PRESERVATION MANAGEMENT
- PRESERVATION ADMINISTRATION
  - [Workflow/Orchestration/Monitoring]
- CONTENT MODEL
- CONTENT PLANNING
- PRESERVATION CONNECTOR

ACCESS SERVICES
- Index
- BHL PORTAL

ACCESS MANAGEMENT
- DIP
- PARTNER PORTAL
- PARTNER APPLICATION

CONTENT CONSUMING

STORAGE VIRTUALIZATION LAYER
- AIP

CONTENT HOSTING
- Data Center

CLOUD

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• How to we deliver sustainability?
  – We are building a Data Centre, providing shared services to our community!
    • Storage – Preservation for paper based materials.
    • Scanning – Digitisation and OCR Services
    • Data Centre – DR, BC, Hosting and related services.
    • Corporate Hospitality – The value proposition!
  – Meeting local requirements to support global projects...

http://www.web3d.co.uk/wroughtondatacentre/
Lessons learnt and feedback

• Open Source
  – No mature solution for preservation and archive yet!
  – Some new entrants show promise: Shaman, Caspar...
  – Fedora is developing OSGi compliance
  – Many bespoke and specific solutions
  – No collaboration between organisations... Can PASIG be Solution tomorrow?

• Team Work
  – Define Architecture before creating work-plan!
  – Assign a Leader to each module of the system.
  – SCRUM approach to development.
  – Communicate Effectively...
  – Avoid “Gurus” and go with Collaboration
  – Promote delivery and discourage “R & D”
Thank You

Questions